Amendments to the Claims

Amendment of Claims Under Revised § 37 C.F.R. 1.121(c)

The Applicants respectfully request amendment of claims 2, 4, 7 and 8, as provided below. The Applicants respectfully request cancellation of claims 1, 3, 5-6 and 9-13 from the present application without prejudice as to the subject matter contained therein.

1. Cancelled.

2. (Currently amended) The method of claim 1 M, further comprising applying a second quantity of the transparentizing material to a second surface of the application site paper substrate opposite to the first surface and along the defined area, and exposing the second surface of the paper substrate to heat supplied by a second heat source to facilitate penetration of the transparentizing material into the paper substrate.

3. Cancelled.

4. (Currently amended) The method of claim 1 15, further comprising providing a second curing agent and exposing the second surface of the application site paper substrate to the second curing agent for a period of time] ultraviolet radiation supplied by a second source of ultraviolet radiation to cure the transparentizing material.

5. Cancelled.

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6. Cancelled.

(Currently amended) The method of claim 1 14, further comprising heating the first quantity of the transparentizing material prior to applying dispensing the transparentizing material to the surface of the applicator.

(Currently amended) The method of claim 1 14, further comprising embossing a perimeter in the first surface of the paper substrate around the application site at the desired position of the defined area before contacting the first surface with the surface of the applicator to prevent migration of the transparentizing material beyond the defined area.

9-13. Cancelled.

Addition of Claims Under Revised § 37 C.F.R. 1.121(c)

The Applicants respectfully request the addition of claims 14-30 to the present application, as provided below.

(New) A method of transparentizing a defined area of a paper substrate, the method comprising:

providing the paper substrate having a first surface and a second surface opposite to the first surface, the paper substrate being substantially planar;

providing a first applicator having a surface with a substantially similar area as the defined area of the paper substrate to be transparentized, wherein the defined area is less than an area of the first surface of the paper substrate;

dispensing a first quantity of a transparentizing material to the surface of the applicator;

contacting the surface of the applicator to the first surface of the paper substrate at a desired position of the defined area to apply the first quantity of the transparentizing material and to prevent migration of the transparentizing material beyond the defined area;

exposing the first surface of the paper substrate to a first heat source such that heat produced by the first heat source impinges the transparentizing material to facilitate penetration of the transparentizing material into the paper substrate; and

exposing the first surface of the paper substrate to a first source of ultraviolet radiation such that the ultraviolet radiation cures the transparentizing material.

(New) The method of claim 2, wherein applying the second quantity of the transparentizing material to the second surface includes applying the second quantity of the transparentizing material to a second applicator having a surface with a substantially similar area as the defined area of the paper substrate, and contacting the second surface with the surface of the second applicator to apply the second quantity of transparentizing material and to prevent migration of the transparentizing material beyond the defined area.

(New) The method of claim 14, further comprising exposing the first surface to heat supplied by a second heat source such that heat produced by the second heat source impinges the transparentizing material to facilitate penetration of the transparentizing material into the paper substrate.

(New) The method of claim 14 further comprising exposing the first surface to a second source of ultraviolet radiation such that the ultraviolet radiation cures the transparentizing material.

(New) The method of claim 14, further comprising controlling a time between exposing the first surface to the first heat source and exposing the first surface to the first source of ultraviolet radiation to facilitate penetration of the transparentizing material into the paper substrate.

(New) The method of claim 14 wherein exposing the first surface to heat supplied by the first heat source includes conveying the first surface of the paper substrate past the first heat source.

(New) The method of claim 19, wherein conveying the first surface of the paper substrate past the first heat source includes conveying the paper substrate at a rate of conveyance to control a time the first surface is exposed to heat.

(New) The method of claim 20, wherein the rate of conveyance includes from about 20 meters per minute to about 250 meters per minute.

(New) The method of claim 20 wherein the rate of conveyance is about 70 meters per minute.

(New) The method of claim 14 wherein exposing the first surface of the paper substrate to ultraviolet radiation supplied by the first source of ultraviolet radiation includes conveying the paper substrate past the first source of ultraviolet radiation.

(New) The method of claim 23, wherein conveying the first surface of the paper substrate past the first source of ultraviolet radiation includes conveying the paper substrate at a rate of conveyance to control a time the first surface is exposed to ultraviolet radiation.

(New) The method of claim 24, wherein the rate of conveyance includes from about 20 meters per minute to about 250 meters per minute.

(New) The method of claim 14, wherein contacting the surface of the applicator to the first surface of the paper substrate includes contacting a roller to the first surface, the roller having configured thereon a raised pattern having a substantially planar surface and an area substantially similar to the defined area.

(New) The method of claim a wherein embossing a perimeter in the first surface of the paper substrate at the desired position of the defined area includes imprinting an embosser to the first surface, the embosser having configured thereon a raised embossing surface, the raised embossing surface defining a perimeter line substantially similar to a perimeter of the defined area.

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(New) A method of producing a paper substrate with a transparentized window, the method comprising:

providing a paper substrate having a first surface and a second surface opposite to the first surface, the paper substrate being substantially planar;

applying a first quantity of a transparentizing material to a defined area of the first surface of the paper substrate at a desired position, the desired position corresponding to a desired location of the transparentized window in the paper substrate, and the defined area corresponding to a desired size of the transparentized window, wherein the defined area is less than an area of the first surface of paper substrate;

exposing the first surface of the paper substrate to a first heat source such that heat produced by the first heat source impinges the transparentizing material to facilitate penetration of the transparentizing material into the paper substrate; and

exposing the first surface of the paper substrate to a first source of ultraviolet radiation such that the ultraviolet radiation cures the transparentizing material.

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(New) The method of claim 28, wherein applying the first quantity of the transparentizing material to the defined area of the first surface includes contacting a surface of an applicator to the first surface of the paper substrate, the surface of the applicator having a first quantity of the transparentizing material dispensed thereon and defining an area substantially similar to the defined area to limit application of the transparentizing material to the defined area and to prevent migration of the transparentizing material beyond the defined area.

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(New) The method of claim 18, further comprising embossing a perimeter in the first surface of the paper substrate at the desired position of the transparentized window prior to applying the first quantity of transparentizing material to the defined area to prevent migration of the transparentizing material beyond the defined area.

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